

Application No.: 09/683,713  
Amendment dated: November 6, 2003  
Reply to Office Action of June 17, 2003

b). Remarks

Claims 1, 3-6, 8-18 are pending in the application. Claims 5, 17, 18 were canceled.  
Claims 1, 3, 4, 6, 10 are amended.

Claims 1, 3-6, 8, 10-12, 16, 16 were rejected under 35 U.S.C. 102(b) over Dixon et al. (U.S. Patent 5,760,951, "Dixon"). Claims 1, 3-6, 8-12, 14 were rejected under 35 U.S.C. 102(b) over Engelhardt et al. (DE 199 14 049 A1, "Engelhardt").

It is well established that a claim is anticipated under 35 U.S.C. §102, only if each and every element of the claim is found in a single prior art reference.<sup>1</sup> Moreover, to anticipate a claim under 35 U.S.C. §102, a single source must contain each and every element of the claim "arranged as in the claim."<sup>2, 3</sup> Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference.<sup>4</sup> If each and every element of a claim is not found in a single reference, there can be no anticipation.

Applicants respectfully assert that neither Dixon nor Engelhardt anticipate each and every element of the invention claimed in amended Claim 1, including the modified illumination or detection PSFs with secondary maxima of the modified and unmodified PSFs being located at different axial positions. Because secondary maxima of the modified and unmodified PSFs are located at different axial positions, the secondary maxima of the overall PSF, which is made by combination of the detection and illumination PSFs, have a greatly reduced intensity, as claimed in amended Claim 1. For example, the optical element in Dixon is used to separate the four images (reflection from one side of the sample, reflection from the other side of the sample, transmission from one side, and transmission from the other side) (Col. 8, lines 64-47). Dixon and Engelhardt are silent regarding modifications of the illumination and detection PSFs, the

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<sup>1</sup> *Veregal Bros. v Union Oil Co. of California*, 814 F.2d 628, 631, 2USPQ2d 1051, 1053 (Fed. Cir. 1987).

<sup>2</sup> *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984).

<sup>3</sup> *Lewmar Marine Inc. v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q. 2d 1766, 1768 (Fed. Cir. 1987), cert. denied, 484 U.S. 1007 (1988).

<sup>4</sup> *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

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axial positions of secondary maxima and their effect on the intensity of secondary maxima of the overall PSF. Therefore, amended Claim 1 is not anticipated by Dixon and Engelhardt and is now allowable.

Claims 3-4, 6-16 depend off now allowable amended Claim 1 and are allowable.

Claims 9, 13, 15, and 16 were rejected under 35 U.S.C. 103(a) over Engelhardt in view of Krause (of record). Applicants respectfully disagree.

For an obviousness rejection to be proper, the Patent Office must meet the burden of establishing a prima facie case of obviousness. The Patent Office must meet the burden of establishing that all elements of the invention are disclosed in the cited publications, which must have a suggestion, teaching or motivation for one of ordinary skill in the art to modify a reference or combined references.<sup>5</sup> The cited publications should explicitly provide a reasonable expectation of success, determined from the position of one of ordinary skill in the art at the time the invention was made.<sup>6</sup>

It is respectfully asserted that none of the cited patents, alone or in combination with the other one, teaches suggests or hints to a double confocal microscope with at least one optical element modifying at least one of the illumination or detection PSF in a way that the secondary maxima of the illumination and detection PSFs are located at different axial positions. When the two PSFs combine to produce the overall PSF, the secondary maxima located at different axial positions cause the intensity of the secondary maxima of the overall PSF to be reduced. Logically, no reasonable expectation of success to combine the references to come up with the microscope of the present invention could be found in Engelhardt or Krause. Therefore, Applicants respectfully request that the rejection be withdrawn.

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<sup>5</sup> *In re Sang Su Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

<sup>6</sup> *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970);

*Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996);

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Moreover, Claims 9, 13, 15, and 16 depend off now allowable amended Claim 1, and therefore are allowable.

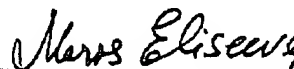
Allowance of Claims 1, 3-4, 6-16 is herein respectfully requested.

### CONCLUSION

The Examiner is kindly invited to telephone the undersigned to resolve any questions to expedite the allowance of the pending Claims.

Authorization is given to charge the extension fee due with this response to our deposit account 502233.

Respectfully submitted,



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